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JOINED BODY AND ITS PRODUCTION

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Abstract of **JP8073280**

PURPOSE: To make the strength of the joint part of ceramic bodies higher than the strength of the conventional joint bodies at the time of joining the ceramic bodies by providing a new joining method for the ceramic bodies. CONSTITUTION: The plural ceramic bodies 1A, 1B are subjected to solid phase joining. The center line average height (Ra) of the respective joint surfaces 2A, 2B of the respective ceramic bodies 1A, 1B is specified to <=0.2&mu m (more preferably <=0.1&mu m) and the flatness degree thereof is confined to <=0.2&mu m (more preferably <=0.1&mu m). A solvent of a joining assistant is applied on at least either of the joint surfaces 2A and 2B and thereafter, the respective ceramic bodies 1A, 1B are heat-treated in the state of pressing the joint surfaces 2A and 2B to each other, by which the joined body is produced. The layers where the atoms of the joining assistant are ample exist along the joint boundaries 4 of the joined body 3 and the ceramic particles grow so as to extend to both sides of the joint boundaries 4.